IN THE ABSTRACT

Replace the abstract originally provided on the cover sheet of the PCT application with the following new abstract. A new abstract numbered page 25 is enclosed for the last page of the application following the claims.

ABSTRACT OF THE DISCLOSURE

A low loss micro-ring resonator device which has a closed-loop resonator waveguide having a first refractive index, the resonator waveguide defining an inner and an outer region by an outer curved edge of the waveguide. The resonator waveguide is arranged on a substrate having a second refractive index, the refractive index difference between the first refractive index and the second refractive index is greater than 0.3. The device also has an upper cladding covering the inner region of the resonator waveguide having a third refractive index and a lateral cladding in contact with the outer curved edge and extending in the outer region, the lateral cladding having a fourth refractive index, the fourth refractive index being lower than the third refractive index. A method for reducing propagation losses of a resonator device is also described.

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